

[54] HEME BINDING COMPOUNDS AND USE THEREOF

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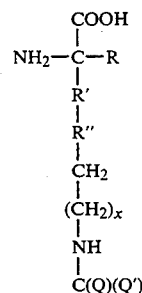
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[57] ABSTRACT

Inhibitors of nitric oxide formation from arginine useful for treating hypotension, inflammation, stroke and to restore vascular contractile sensitivity to the effects of α_1 adrenergic agonists are physiologically active compounds including N^δ-substituted ornithine or N^ε-substituted lysine moieties or monoalkyl carbon-substituted N^δ-substituted ornithine or N^ε-substituted lysine moieties, having the formula



wherein R is (CH₂)_yCH₃ or H, R' is CH₂ or C(H)(CH₂)_yCH₃, and R'' is CH₂ or C(H)(CH₂)_yCH₃, with y ranging from 0 to 5, and x is 0 or 1 and wherein none or only one of R, R' and R'' provides an alkyl substituent on ornithine or lysine moiety, and wherein Q is a heme binding moiety and/or a sulfur-containing binding moiety and Q' is —NH₂ when there is a double bond between the omega carbon and Q and Q' is =NH when there is a single bond between the omega carbon and Q, and physiologically acceptable acid addition salts thereof.

23 Claims, 5 Drawing Sheets